DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES Office of Structural Materials

Quality Assurance and Source Inspection

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Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 69.28

WELDING INSPECTION REPORT

Resident Engineer: Siegenthaler, Peter **Report No:** WIR-022424 Address: 333 Burma Road **Date Inspected:** 06-Apr-2011

City: Oakland, CA 94607

OSM Arrival Time: 700 **Project Name:** SAS Superstructure **OSM Departure Time:** 1900 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

CWI Name: CWI Present: Yes Mr. Liu hua jie No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A Yes N/A Weld Procedures Followed: N/A **Electrode to specification:** No Yes No N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A N/A Yes No N/A **Approved Drawings:** Yes No **Approved WPS:** Yes No N/A **Delayed / Cancelled:**

34-0006 **Bridge No: Component:** Orthotropic Box Girder (OBG)

Summary of Items Observed:

This CALTRANS OSM Quality Assurance Inspector (QA) Surendra Prabhu was present during the times noted above for observations relative to the fabrication of the Self Anchored Suspension (SAS) Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island, in Shanghai, China. QA observed and/or found the following:

OBG Trial Assembly open yard.

Segment:13AW

This QA Inspector randomly observed the following work in progress:

Shielded Metal Arc Welding (SMAW) welding of weld joint identified as SEG3013-004. Welder is identified as 067764. ZPMC Quality Control (QC) is identified as Mr. Zhang Qiang. The welding variables recorded by QC personnel observed appeared to comply with Welding Procedure Specification (WPS): WPS-B-P-2214-B-U2-FCM-1.

SMAW welding of weld joint identified as SEG3013-012. Welder is identified as 067609. ZPMC QC is identified as Mr. Zhang Qiang. The welding variables recorded by QC personnel observed appeared to comply with WPS: WPS-B-P-2214-B-U2-FCM-1.

SMAW repair welding of weld joint identified as SEG3013AD-067. Welder is identified as 067864. ZPMC QC is

WELDING INSPECTION REPORT

(Continued Page 2 of 3)

identified as Mr. Zhang Qiang. The welding variables recorded by QC personnel observed appeared to comply with WPS: WPS-345-SMAW-4G (4F)-FCM-repair-1. The repair welding was being performed as per Welding Repair Report (WRR) No: B-WR20573.

SMAW repair welding of weld joint identified as SEG3013AD-012. Welder is identified as 066443. ZPMC QC is identified as Mr. Zhang Qiang. The welding variables recorded by QC personnel observed appeared to comply with WPS: WPS-345-SMAW-3G (3F)-FCM-repair-1. The repair welding was being performed as per Welding Repair Report (WRR) No: B-WR20534.

Flux Cored Arc Welding (FCAW) welding of weld joint identified as SEG3013B-269. Welder is identified as 048696. ZPMC QC is identified as Mr. Zhang Qiang. The welding variables recorded by QC personnel observed appeared to comply with WPS: WPS-B-T-2233-ESAB.

During random in process inspection of OBG Segment 13AW at Panel Point (PP)# 119.5 Cross beam side Floor beam (FB3197) to RS stiffener weld joint, this QA observed that the gap between joint root to steel backing is measured to be approximately 4.5 mm. The weld joint is identified as SEG3013E-158. This weld joint is Complete Joint Penetration with steel backing. The welding is completed and ZPMC performed NDT of this weld joint. This QA marked the affected area and informed ZPMC QC indentified as Mr. Zhang Qiang and AB/F QA Inspector identified as Mr. Wei of this issue. Mr. Zhang Qiang and Mr. Wei informed this QA that the gap would be corrected in a manner compliant with the contract documents. This QA Inspector also informed to Shop Lead QA Inspector of this issue. See attached photos for further information.

ZPMC personnel installing the Saddle beam support by using crane at PP 118~119.5 Counter weight side. See attached photos for further information.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.





WELDING INSPECTION REPORT

(Continued Page 3 of 3)





Summary of Conversations:

No significant conversations were reported on this date.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang 15000422372, who represents the Office of Structural Materials for your project.

Inspected By:	Prabhu,Surendra	Quality Assurance Inspector
Reviewed By:	Peterson,Art	QA Reviewer